WEST Search History

Hide Items | Restore | Clear | Cancel

DATE: Tuesday, September 27, 2005

Hide?	Set Name	Query	Hit Count
		DB=PGPB,USPT,JPAB,DWPI; PLUR=YES; OP=ADJ	
☐	L6	L5 and eye	78
☐	L5	l1 and L4	93
☐	L4	(inhibit$ or reduc$ or suppress$) near3 (neovascular$ or angiogen$)	11921
☐	L3	L2 and eye	99
☐	L2	L1 and (neovascular$ or angiogen$)	140
☐	L1	PEDF	169

END OF SEARCH HISTORY

$%^STN;HighlightOn= ***;HighlightOff=*** ;

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1633cxq

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

********** Welcome to STN International **********

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 JUL 20 Powerful new interactive analysis and visualization software,
STN AnaVist, now available
NEWS 4 AUG 11 STN AnaVist workshops to be held in North America
NEWS 5 AUG 30 CA/CAplus -Increased access to 19th century research documents
NEWS 6 AUG 30 CASREACT - Enhanced with displayable reaction conditions
NEWS 7 SEP 09 ACD predicted properties enhanced in REGISTRY/ZREGISTRY
NEWS 8 SEP 22 MATHDI to be removed from STN

NEWS EXPRESS JUNE 13 CURRENT WINDOWS VERSION IS V8.0, CURRENT
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 13 JUNE 2005

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation
of commercial gateways or other similar uses is prohibited and may
result in loss of user privileges and other penalties.

********** STN Columbus **********

FILE 'HOME' ENTERED AT 16:46:45 ON 27 SEP 2005

=> FIL EMBASE BIOSIS CAPLUS
COST IN U.S. DOLLARS SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST 0.21 0.21

FILE 'EMBASE' ENTERED AT 16:47:01 ON 27 SEP 2005
Copyright (c) 2005 Elsevier B.V. All rights reserved.

FILE 'BIOSIS' ENTERED AT 16:47:01 ON 27 SEP 2005
Copyright (c) 2005 The Thomson Corporation

FILE 'CAPLUS' ENTERED AT 16:47:01 ON 27 SEP 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

=> s PEDF
L1 727 PEDF

=> s (neovascular? or angiogen?) (3a) (inhibit? or suppres? or block?)
L2 24387 (NEOVASCULAR? OR ANGIOGEN?) (3A) (INHIBIT? OR SUPPRES? OR BLOCK?
)

=> s l1 and l2
L3 260 L1 AND L2

=> s l3 and eye
L4 160 L3 AND EYE

=> dup rem l4
PROCESSING COMPLETED FOR L4
L5 100 DUP REM L4 (60 DUPLICATES REMOVED)

=> d bib abs 1-20

L5 ANSWER 1 OF 100 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:611995 CAPLUS
DN 143:126814
TI Compositions and methods for combined therapy of disease by RNAi compound
reduction of expression of one gene and second compound increasing
expression of second gene
IN Reich, Samuel J.; Tolentino, Michael J.
PA The Trustees of the University of Pennsylvania, USA
SO PCT Int. Appl., 75 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005062957	A2	20050714	WO 2004-US43454	20041223

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
MR, NE, SN, TD, TG
PRAI US 2003-532099P P 20031223
AB A desired physiol. state can be induced by altering the amt. of gene
products in target cells of a subject. The target cells are treated with
at least one compd. designed to reduce expression of at least one first
gene by RNAi, and with at least one compd. designed to increase expression
from at least one second gene. The reduced expression of the first gene
and the increased expression from the second gene in the target cells
induces the desired physiol. state in the subject. By altering target
cell gene expression in this way, conditions such as angiogenesis or tumor
growth and metastasis can be inhibited. The hypoxia-induced increase of
human vascular endothelial growth factor (VEGF) levels in HEK 293 cells
was reduced significantly in cells transfected with plasmids expressing
pigment epithelium-derived factor (***PEDF***) and siRNA targeting
VEGF in a dose-dependent manner.

L5 ANSWER 2 OF 100 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:405387 CAPLUS
DN 142:442338
TI Use of pigment epithelium-derived factor and its peptides to treat
conditions involving increased vascular permeability or increased
angiogenesis
IN Tong, Patrick; Liu, Hua
PA The Johns Hopkins University, USA
SO PCT Int. Appl., 72 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI WO 2005041887 A2 20050512 WO 2004-US36245 20041029
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRAI US 2003-515374P P 20031029
AB The present invention relates to method of treating a patient with a condition involving increased vascular permeability or increased angiogenesis comprising administering to the patient a therapeutically effective amt. of ***PEDF*** , ***PEDF*** 44 AA peptide, a homolog of the ***PEDF*** 44 AA peptide, a homolog of the ***PEDF*** 44 AA peptide wherein amino acid residues glutamate at the (101) amino acid position, isoleucine at the (103) amino acid position, leucine at the (112) and serine at the (115) amino acid position are unchanged, or an agent that activates the ***PEDF*** receptor. Conditions for treatment include, but are not limited to, sepsis, acute respiratory distress syndrome, nephrotic syndrome, diabetic neuropathy, preproliferative diabetic retinopathy, cancer or proliferative diabetic retinopathy.

L5 ANSWER 3 OF 100 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:283364 CAPLUS
DN 142:349102
TI Combinations of a VEGF receptor inhibitor with other agents for therapeutic use
IN Bold, Guido; Brueggen, Josef Bernhard; Huang, Jerry Min-Jian; Kinder, Frederick Ray; Lane, Heidi; Latour, Elisabeth Jeanne; Manley, Paul William; Wood, Jeanette Marjorie
PA Novartis Ag, Switz.; Novartis Pharma GmbH
SO PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005027973	A2	20050331	WO 2004-EP10701	20040923

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRAI US 2003-505255P P 20030923
OS MARPAT 142:349102
AB The invention discloses a combination therapy for treating patients suffering from diseases characterized by cell proliferation and infiltration of inflammatory cells, coronary diseases, hypertension, renal diseases, diabetes, or ocular diseases and conditions. The patient is treated with a combination of a VEGF inhibitor compd. and one or more second therapeutic agents selected from angiostatic steroids, photosensitizers, implants contg. corticosteroids, AT1 receptor antagonists, ACE inhibitors, cyclooxygenase inhibitors, IGF-IR inhibitors, mTOR kinase inhibitors, somatostatin receptor antagonists, P13K inhibitors, Raf kinase inhibitors, PKC inhibitors; xiii. integrin antagonists, endogenous anti-angiogenic mols., and ***PEDF*** (pigment epithelium-derived factor) and analogs.

L5 ANSWER 4 OF 100 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:141111 CAPLUS
DN 142:234460
TI Protein and nucleotide sequences of human, mouse and rat ***PEDF*** -R and its therapeutic uses
IN Becerra, Patricia S.; Notari, Luigi; Laborda, Jorge; Martinez, Julio Escribano
PA The Government of the United States of America, as Represented by the Secretary Department of Health and Human Services, USA
SO PCT Int. Appl., 177 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005014645	A2	20050217	WO 2004-US25560	20040805
WO 2005014645	A3	20050616		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRAI US 2003-493713P P 20030807
US 2004-579177P P 20040612
AB The present invention relates to a pigment epithelium derived factor (' ***PEDF*** ') receptor designated ***PEDF*** -R and ***PEDF*** -R encoding nucleic acid and amino acid sequences of human, mouse and rat. Wild type ***PEDF*** -R, ***PEDF*** -R variants, sol. ***PEDF*** -R variants, chimeric ***PEDF*** -R, and antibodies which bind to the ***PEDF*** -R (including agonist and neutralizing antibodies), as well as various uses for these mols. are described. Assay systems for detecting ligands to ***PEDF*** -R, systems for studying the physiol. role of ***PEDF*** -R and its ligands, diagnostic techniques for identifying ***PEDF*** -related conditions, therapeutic techniques for the treatment of ***PEDF*** -related and ***PEDF*** -R related conditions, and methods for identifying mols. homologous to ***PEDF*** -R. The present invention further provides an antibody for ***PEDF*** -R and hybridomas

capable of secreting antibodies. The present invention provides a method
of treating a neurol. disease, an ocular disease, angiogenesis disorder or
neovascularization in a subject comprising administering to the subject a
therapeutically effect amt. of pharmaceutical compn. of the present
invention.

L5 ANSWER 5 OF 100 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:572577 CAPLUS
DN 143:72270
TI Angiostatin, pigment epithelium-derived factor, and SLED compounds useful
in inhibiting vascular leakage, inflammation and fibrosis
IN Ma, Jian-Xing
PA USA
SO U.S. Pat. Appl. Publ., 55 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2005143300	A1	20050630	US 2004-963115	20041012
PRAI US 2003-510620P	P	20031010		

AB The present invention is directed to a method of inhibiting at least one
of vascular leakage, inflammation and fibrosis in an animal by
administering to the animal a vascular leakage inhibiting amt. of a
compn., wherein at a substantially higher amt. the compn. is effective in
inhibiting ***angiogenesis*** , and wherein the anti-angiogenic
activity of the compn. is sep. from the vascular leakage inhibiting
activity of the compn. The animal experiencing at least one of vascular
leakage, inflammation and fibrosis has a disease selected from the group
consisting of diabetes, chronic inflammation, brain edema, arthritis,
uveitis, macular edema, cancer, hyperglycemia, a kidney inflammatory
disease, a disorder resulting in kidney fibrosis, a disorder of the kidney
resulting in proteinuria, and combinations thereof. The compn. capable of
inhibiting at least one of vascular leakage, inflammation and fibrosis is
selected from the group consisting of angiostatin, fragments of
angiostatin, analogs or derivs. of angiostatin, pigment epithelium-derived
factor, fragments of pigment epithelium-derived factor, analogs or derivs.
of pigment epithelium-derived factor and combinations thereof.

L5 ANSWER 6 OF 100 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:999236 CAPLUS
TI Use of recombinant adeno-associated virus vectors encoding antiangiogenic
factor for treating or preventing neovascularization of diseased eyes
IN Manning, William C., Jr.; Dwarki, Varavani J.; Rendahl, Katherine; Zhou,
Shangzhen; Miller, Sheldon S.; Wang, Fei
PA The Regents of the University of California, USA; Chiron Corporation
SO U.S., 74 pp., Cont.-in-part of U.S. Ser. No. 525,956, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6943153	B1	20050913	US 2000-665493	20000920
WO 2002024234	A2	20020328	WO 2001-US29480	20010920
WO 2002024234	A3	20021227		
W: AU, CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
AU 2001092881	A5	20020402	AU 2001-92881	20010920
US 2002194630	A1	20021219	US 2002-90983	20020304
PRAI US 1999-124460P	P	19990315		
US 2000-174984P	P	20000106		
US 2000-525956	B2	20000315		
US 2000-665493	A	20000920		
WO 2001-US29480	W	20010920		

AB The present invention provides a method of ***inhibiting*** ***angiogenesis*** in a diseased ***eye*** of a subject, comprising,
administering intraocularly a recombinant adeno-assocd. virus (rAAV) gene
delivery vector which directs the expression of an antiangiogenic factor,
such that administration of said vector ***inhibits*** ***neovascularization*** of the diseased ***eye*** . Specifically,
said anti-angiogenic factor is sol. Flt-1, ***PEDF*** , sol. Tie-2
receptor, or a single chain anti-VEGF antibody. The diseased ***eye***
is in a subject having diabetic retinopathy, wet AMD or retinopathy of
prematurity.
RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 7 OF 100 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights
reserved on STN DUPLICATE 1
AN 2005268935 EMBASE
TI Two functional epitopes of pigment epithelial-derived factor ***block***
angiogenesis and induce differentiation in prostate cancer.
AU Filleur S.; Volz K.; Nelius T.; Mirochnik Y.; Huang H.; Zaichuk T.A.;
Aymerich M.S.; Becerra S.P.; Yap R.; Veliceasa D.; Shroff E.H.; Volpert
O.V.
CS O.V. Volpert, Department of Urology, Feinberg School of Medicine,
Northwestern University, 300 East Superior Street, Chicago, IL 60611,
United States. olgavolp@northwestern.edu
SO Cancer Research, (15 Jun 2005) Vol. 65, No. 12, pp. 5144-5152.
Refs: 57
ISSN: 0008-5472 CODEN: CNREA8
CY United States
DT Journal; Article
FS 016 Cancer
028 Urology and Nephrology
030 Pharmacology
037 Drug Literature Index
LA English
SL English
ED Entered STN: 20050707
Last Updated on STN: 20050707
AB Pigment epithelial-derived factor (***PEDF***), an ***angiogenesis*** ***inhibitor*** with neurotrophic properties,
balances angiogenesis in the ***eye*** and blocks tumor progression.
Its neurotrophic function and the ability to block vascular leakage is
replicated by the ***PEDF*** 44-mer peptide (residues 58-101). We
analyzed PEDFs' three-dimensional structure and identified a potential
receptor-binding surface. Seeking ***PEDF*** -based antiangiogenic
agents we generated and tested peptides representing the middle and lower
regions of this surface. We identified previously unknown antiangiogenic
epitopes consisting of the 34-mer (residues 24-57) and a shorter proximal
peptide (TGA, residues 16-26) with the critical stretch L(19)VEEED(24) and
a fragment within the 44-mer (ERT, residues 78-94), which retained
neurotrophic activity. The 34-mer and TGA, but not the 44-mer reproduced
PEDF angioinhibitory signals hinged on c-jun-NH
(2)-kinase-dependent nuclear factor of activated T cell deactivation and
caused apoptosis. Conversely, the ERT, but not the 34-mer/TGA induced
neuronal differentiation. For the 44-mer/ERT, we showed a novel ability
to cause neuroendocrine differentiation in prostate cancer cells.

PEDF and the peptides bound endothelial and PC-3 prostate cancer
cells. Bound peptides were displaced by ***PEDF*** , but not by each
other, suggesting multiple receptors. ***PEDF*** and its active
fragments blocked tumor formation when conditionally expressed by PC-3
cells. The 34- and 44-mer used distinct mechanisms: the 34-mer acted on
endothelial cells, ***blocked*** ***angiogenesis*** , and induced
apoptosis whereas 44-mer prompted neuroendocrine differentiation in cancer
cells. Our results map active regions for the two ***PEDF***
functions, signaling via distinct receptors, identify candidate peptides,
and provide their mechanism of action for future development of
PEDF -based tumor therapies. .COPYRGT. 2005 American Association
for Cancer Research.

L5 ANSWER 8 OF 100 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:318192 CAPLUS
DN 142:476326
TI The neuroprotective and ***angiogenesis*** ***inhibitory***
serpin, ***PEDF*** : New insights into phylogeny, function, and signaling
AU Tombran-Tink, Joyce
CS Division of Pharmaceutical Sciences, University of Missouri-Kansas City,
Kansas City, MO, 64110, USA
SO Frontiers in Bioscience (2005), 10(Suppl.), 2131-2149
CODEN: FRBIF6; ISSN: 1093-4715
URL: http://www.bioscience.org/asp/getfile.asp?FileName=/2005/v10/af/1686/
1686.pdf
PB Frontiers in Bioscience
DT Journal; General Review; (online computer file)
LA English
AB A review. Pigment Epithelial-Derived Factor (***PEDF***) is a
non-inhibitory serpin with neuroprotective and antiangiogenic actions. It
is a potent and broadly acting neurotrophic factor that protects neurons
from many regions of the central nervous system against a wide range of
neurodegenerative insults including glutamate toxicity and oxidative
stress. ***PEDF*** also functions as a natural ***inhibitor*** of
angiogenesis , targeting the growth of only new vessels. The
50-kDa protein is encoded by a single gene that shows strong conservation
across phyla from fish to mammals. Two specific domains on the
PEDF protein interact with extracellular matrix components and may
mediate some of the biol. actions of this protein. The transducers
through which ***PEDF*** signals neurons and endothelial cells are
defined and involves major pathways including Akt/NFkB, MAPK, and the
caspases. ***PEDF*** is widely expressed in the nervous system and in
most tissues of the body. A significant amt. of the protein is found in
the cerebrospinal fluid and circulating plasma as well. Therapeutic
administration of the sol. protein or viral-mediated transfer of the gene
in exptl. in vivo models suggests that ***PEDF*** is an excellent
pharmacol. tool for slowing the progression of a range of
neurodegenerative diseases and those pathologies assocd. with abnormal
vessel growth in the ***eye*** and metastatic cancers of various
tissues.
RE.CNT 107 THERE ARE 107 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 9 OF 100 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights
reserved on STN DUPLICATE 2
AN 2005167594 EMBASE
TI Met72Thr polymorphism of pigment epithelium-derived factor gene and
susceptibility to age-related macular degeneration.
AU Yamagishi S.; Nakamura K.; Inoue H.; Takeuchi M.
CS S. Yamagishi, Department of Medicine, Kurume University, School of
Medicine, 67 Asahi-machi, Kurume 830-0011, Japan. shoichi@med.kurume-u.ac.jp
SO Medical Hypotheses, (2005) Vol. 64, No. 6, pp. 1202-1204.
Refs: 16
ISSN: 0306-9877 CODEN: MEHYDY
CY United Kingdom
DT Journal; (Short Survey)
FS 012 Ophthalmology
022 Human Genetics
029 Clinical Biochemistry
LA English
SL English
ED Entered STN: 20050526
Last Updated on STN: 20050526
AB Age-related macular degeneration (ARMD) is the most common cause of
acquired blindness among the people of occupational age. Although the
pathogenesis of ARMD is not fully understood, several studies suggest a
possible contribution of a genetic factor in the development and
progression of ARMD. Pigment epithelium-derived factor (***PEDF***),
a glycoprotein that belongs to the superfamily of serine protease
inhibitors, was first purified from the conditioned media of human retinal
pigment epithelial cells as a factor with potent neuronal differentiating
activity in human retinoblastoma cells. Recently, ***PEDF*** has been
shown to be a highly effective ***inhibitor*** of ***angiogenesis***
in cell culture and animal models. In addition, ***PEDF*** has been
found in the vitreous, and its levels were decreased in angiogenic
eye diseases, thus suggesting that a loss of ***PEDF*** in the
eye is functionally important in the pathogenesis of ARMD. A
functional amino acid change, a methionine to threonine polymorphism
(Met72Thr polymorphism) at codon 72 in exon 3 (T/C polymorphism) of the
PEDF gene, that results in the formation of BsstSI restriction
site, has recently been identified. Since it is well known that a single
nucleotide polymorphism and resultant amino acid change often alters the
activity or expression level of the target protein, we would like to
propose here a novel hypothesis that the Met72Thr polymorphism (T/C
polymorphism) of ***PEDF*** gene may be a genetic marker for ARMD.
Are genotype and allele frequencies of the Met72Thr polymorphism (T/C
polymorphism) different between the patients with or without ARMD? Is this
polymorphism associated with disease severity and progression? If the
answer is yes, does this Met72Thr polymorphism regulate the vitreous
levels of ***PEDF*** ? These clinical studies could provide us with
information whether this genetic variant of the ***PEDF*** gene could
present an attractive candidate susceptibility gene for ARMD. .COPYRGT.
2005 Elsevier Ltd. All rights reserved.

L5 ANSWER 10 OF 100 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:53535 CAPLUS
DN 142:212706
TI Extracellular phosphorylation converts pigment epithelium-derived factor
from a neurotrophic to an antiangiogenic factor
AU Maik-Rachline, Galia; Shaltiel, Shmuel; Seger, Rony
CS Department of Biological Regulation, The Weizmann Institute of Science,
Rehovot, Israel
SO Blood (2005), 105(2), 670-678
CODEN: BLOOAW; ISSN: 0006-4971
PB American Society of Hematology
DT Journal
LA English
AB The pigment epithelium-derived factor (***PEDF***) belongs to the

superfamily of serine protease inhibitors (serpin). There have been 2
distinct functions attributed to this factor, which can act either as a
neurotrophic or as an antiangiogenic factor. Besides its localization in
the ***eye*** , ***PEDF*** was recently reported to be present also
in human plasma. We found that ***PEDF*** purified from plasma is a
phosphoprotein, which is extracellularly phosphorylated by protein kinase
CK2 (CK2) and to a lesser degree, intracellularly, by protein kinase A
(PKA). CK2 phosphorylates ***PEDF*** on 2 main residues, Ser24 and
Ser114, and PKA phosphorylates ***PEDF*** on one residue only, Ser227.
The physiol. relevance of these phosphorylations was detd. using
phosphorylation site mutants. We found that both CK2 and PKA
phosphorylations of ***PEDF*** markedly affect its physiol. function.
The fully CK2 phosphorylation site mutant S24, 114E abolished ***PEDF***
neurotrophic activity but enhanced its antiangiogenic activity, while the
PKA phosphorylation site mutant S227E reduced ***PEDF***
antiangiogenic activity. This is a novel role of extracellular
phosphorylation that is shown here to completely change the nature of
PEDF from a neurotrophic to an antiangiogenic factor.
RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 11 OF 100 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights
reserved on STN DUPLICATE 3
AN 2005213775 EMBASE
TI Periocular gene transfer of pigment epithelium-derived factor
inhibits choroidal ***neovascularization*** in a human-sized
eye .
AU Saishin Y.; Silva R.L.; Saishin Y.; Kachi S.; Aslam S.; Yuan Y.G.; Lai H.;
Carrion M.; Harris B.; Hamilton M.; Wei L.; Campochiaro P.A.
CS Dr. P.A. Campochiaro, Maumenee 719, Johns Hopkins University, School of
Medicine, 600 N. Wolfe Street, Baltimore, MD 21287-9277, United States.
pcampo@jhmi.edu
SO Human Gene Therapy, (2005) Vol. 16, No. 4, pp. 473-478.
Refs: 17
ISSN: 1043-0342 CODEN: HGTHE3
CY United States
DT Journal; Article
FS 012 Ophthalmology
022 Human Genetics
037 Drug Literature Index
LA English
SL English
ED Entered STN: 20050602
Last Updated on STN: 20050602
AB Gene transfer provides a potential way to achieve sustained delivery of
therapeutic proteins to the ***eye*** . Studies in rodents have
suggested that periocular injection of adenoviral vectors containing
expression cassettes for antiangiogenic proteins results in high
intraocular levels of the proteins and ***suppression*** of choroidal
neovascularization (CNV). However, the differences in size and
scleral thickness between mouse and human eyes make it difficult to
ascertain if periocular gene transfer is a feasible approach for treating
human choroidal diseases. To address this issue, we tested the effect of
periocular injection of an expression cassette for pigment
epithelium-derived factor (***PEDF***) packaged in adenoviral vector
(AdPEDF.11) in a CNV model in pigs, which have eyes that are very similar
to humans in size and scleral thickness. Periocular injection of
.beta.-galactosidase (AdLacZ.11) resulted in prominent transduction of
periocular tissues, as was seen in mice. Periocular injection of
AdPEDF.11 caused increased levels of ***PEDF*** in the choroid and
significantly reduced the amount of CNV at rupture sites in Bruch's
membrane. These data suggest that periocular gene transfer may be
feasible for treatment of human choroidal diseases. .COPYRGT. Mary Ann
Liebert, Inc.

L5 ANSWER 12 OF 100 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights
reserved on STN DUPLICATE 4
AN 2004480206 EMBASE
TI How ***PEDF*** prevents angiogenesis: A hypothesized pathway.
AU Ren J.-G.; Jie C.; Talbot C.
CS jgren@rics.bwh.harvard.edu
SO Medical Hypotheses, (2005) Vol. 64, No. 1, pp. 74-78.
Refs: 35
ISSN: 0306-9877 CODEN: MEHYDY
PUI S 0306-9877(04)00391-3
CY United Kingdom
DT Journal; General Review
FS 030 Pharmacology
LA English
SL English
ED Entered STN: 20041202
Last Updated on STN: 20041202
AB Pigment epithelium-derived factor (***PEDF***) is a multiple functional protein, coded by the serine proteinase inhibitor, clade F,
member 1 (SERPINF1) gene, which has both anti-angiogenic activity and
neurotrophic activity at the same time. Its antiangiogenic activity in
the mammalian ***eye*** is the most potent known at this time.
However, the mechanism(s) by which ***PEDF*** works in vivo is still
uncertain. Some observations suggest that ***PEDF*** can
simultaneously inhibit the migration and proliferation induced by vascular
endothelial growth factor (VEGF), and then further ***inhibits***
angiogenesis by interacting with specific cell surface receptors,
but no such receptor has been reported to date. Here we propose a
hypothesis that ***PEDF*** exerts its function by binding with
intergrins. Intergrin can therefore serve as the receptor of ***PEDF***
. .COPYRGT. 2004 Elsevier Ltd. All rights reserved.

L5 ANSWER 13 OF 100 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights
reserved on STN DUPLICATE 5
AN 2005139428 EMBASE
TI Pigment epithelium-derived factor inhibits oxidative stress-induced
apoptosis and dysfunction of cultured retinal pericytes.
AU Amano S.; Yamagishi S.-I.; Inagaki Y.; Nakamura K.; Takeuchi M.; Inoue H.;
Imaizumi T.
CS S.-I. Yamagishi, Department of Internal Medicine III, Kurume University,
School of Medicine, 67 Asahi-Machi, Kurume 830-0011, Japan.
shoichi@med.kurume-u.ac.jp
SO Microvascular Research, (2005) Vol. 69, No. 1-2, pp. 45-55.
Refs: 52
ISSN: 0026-2862 CODEN: MIVRA6
CY United States
DT Journal; Article
FS 012 Ophthalmology
029 Clinical Biochemistry
LA English
SL English
ED Entered STN: 20050428
Last Updated on STN: 20050428
AB Pigment epithelium-derived factor (***PEDF***) is a potent
inhibitor of ***angiogenesis*** in the mammalian ***eye***
, suggesting that loss of ***PEDF*** is implicated in the pathogenesis
of proliferative diabetic retinopathy. However, a role for ***PEDF***
in early diabetic retinopathy remains to be elucidated. Since oxidative
stress is thought to be involved in pericyte loss and dysfunction, one of
the changes characteristic of early diabetic retinopathy, we investigated
whether and how ***PEDF*** could protect cultured retinal pericyte
against oxidative stress injury. High glucose (30 mM) increased
intracellular reactive oxygen species (ROS) generation in pericytes, which
was completely blocked by ***PEDF*** . High glucose or H(2)O(2) was

found to induce growth retardation and apoptotic cell death of pericytes.
PEDF completely restored these cytopathic effects on pericytes.
An increased ratio of bax to bcl-2 mRNA level with subsequent activation
of caspase-3 was observed in high-glucose- or H (2)O(2)-exposed pericytes,
which was also completely prevented by ***PEDF*** . ***PEDF***
significantly increased glutathione peroxidase (GPx) mRNA levels and
activity in pericytes. Further, ***PEDF*** was found to completely
inhibit high-glucose- or H(2)O(2)-induced increase in a mRNA ratio of
angiopoietin-2 to angiopoietin-1 and up-regulation of VEGF mRNA levels in
pericytes. ***PEDF*** mRNA levels themselves were down-regulated in
high-glucose- or H(2)O(2)-exposed pericytes. These results demonstrate
that ***PEDF*** protects against high-glucose- or H(2)O(2)-induced
pericyte apoptosis and dysfunction through its anti-oxidative properties .
via GPx induction. Our present study suggests that substitution of
PEDF proteins might be a promising therapeutic strategy for
treatment of patients with early diabetic retinopathy.

L5 ANSWER 14 OF 100 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:45589 CAPLUS
DN 142:258393
TI Vitamin A up-regulates the expression of thrombospondin-1 and pigment
epithelium-derived factor in retinal pigment epithelial cells
AU Uchida, Hiroko; Hayashi, Hideyuki; Kuroki, Motomu; Uno, Koichi; Yamada,
Hiromi; Yamashita, Yuichi; Tombran-Tink, J.; Kuroki, Masahide; Oshima,
Kenji
CS Department of Ophthalmology, School of Medicine, Fukuoka University,
Fukuoka, 814-0180, Japan
SO Experimental Eye Research (2005), 80(1), 23-30
CODEN: EXERA6; ISSN: 0014-4835
PB Elsevier
DT Journal
LA English
AB Vitamin A is essential for the visual system. It is metabolized in the
retina and the resulting product, retinoic acid (RA), greatly affects the
structure and functions of retinal pigment epithelial (RPE) cells. RPE
cells produce a variety of extracellular matrix (ECM) proteins and
angiogenic factors, both of which are expressed at varying levels in the
normal RPE layer. In this study, we investigated the effect of
all-trans-retinoic acid on the prodn. of an ECM protein, thrombospondin-1
(TSP-1), and two angiogenic factors, pigment epithelium-derived factor (
PEDF) and vascular endothelial growth factor (VEGF) by RPE cells.
RA increased the release of TSP-1 and ***PEDF*** , but not that of
VEGF, from human RPE cells in vitro. In vitamin A-deficient mice, the
expression of TSP-1 and ***PEDF*** in the RPE layer considerably
decreased compared with that of normal control mice. The vitamin A
deficiency hardly affected the accumulation of VEGF in the RPE layer.
These findings suggest that vitamin A modulates the structure and
anti-angiogenic functions of the RPE layer partly by up-regulating the
expression of the angiogenesis-related ECM protein, TSP-1, and the
anti-angiogenic factor, ***PEDF*** .
RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 15 OF 100 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:333513 CAPLUS
DN 143:113591
TI Immunological Factors in the Pathogenesis and Treatment of Age-Related
Macular Degeneration
AU Kijlstra, A.; La Heij, E.; Hendrikse, F.
CS Eye Research Institute Maastricht, Department of Ophthalmology, University
of Maastricht, Maastricht, Neth.
SO Ocular Immunology and Inflammation (2005), 13(1), 3-11
CODEN: OIINEN; ISSN: 0927-3948
PB Taylor & Francis Inc.
DT Journal; General Review
LA English
AB A review. Recent findings indicate that immunol. factors are involved not
only in the pathogenesis of age-related macular degeneration (AMD), but
also in its treatment. Earlier data showing the presence of inflammatory
cells in affected areas of AMD retinas support this statement. Although a
possible role for autoimmunity was initially suggested, it has never
reached general acceptance. Microorganisms have also been implied in the
pathogenesis of AMD. Both serum antibacterial antibody levels and pos.
DNA tests from neovascular membranes have pointed to a possible role for
Chlamydia pneumoniae in the pathogenesis of AMD. New data is providing
evidence for the hypothesis that deposits between Bruch's membrane and the
retinal pigment epithelium (RPE) cell layer may act as a stimulus for the
local activation of the complement system. This may lead to a further
growth of the deposits due to the strong chemotactic activity of certain
complement activation products (such as C5a) with an influx of
inflammatory cells. The buildup of cells and extracellular deposits may
lead to local ischemia resulting in the activation of RPE cells. These
activated RPE cells are thought to release angiogenic stimuli leading to
choroidal neovascularization, which is the most serious complication of
AMD. The fact that immunosuppressive drugs such as triamcinolone
acetonide and anecortave acetate are capable of ***inhibiting***
choroidal ***neovascularization*** is consistent with an inflammatory
component in the pathogenesis of AMD. Specific immunotherapy directed at
certain cytokines or growth factors is now being investigated at both the
animal and patient levels. Various clin. trials involving engineered
antibodies are now being applied to ***block*** ***angiogenic***
factors such as the vascular endothelial growth factor (VEGF). An
approach using gene therapy to influence angiogenesis by inducing the
prodn. of the pigment epithelium-derived factor (***PEDF***) was able
to ***block*** ***neovascularization*** in an exptl. murine model.
Besides trying to block ongoing processes in AMD, retinal transplantation
is now also being investigated as a treatment option. The fact that the
retina is possibly an immunoprivileged tissue in combination with exptl.
data showing that the subretinal space is an immunoprivileged site is an
indication that transplantation would not suffer from the rejection
process. A larger obstacle is the question whether transplanted retinal
tissue will regain its functional properties.
RE.CNT 75 THERE ARE 75 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 16 OF 100 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
STN DUPLICATE 6
AN 2004:415605 BIOSIS
DN PREV200400419260
TI Methods and compositions for ***inhibiting*** ***angiogenesis*** .

AU Bouck, Noel P. [Inventor, Reprint Author]; Dawson, David W. [Inventor];
Gillis, Paul R. [Inventor]; Volpert, Olga [Inventor]; Crawford, Susan E.
[Inventor]; Stellmach, Veronica M. [Inventor]
CS Occidental, CA, USA
ASSIGNEE: Northwestern University
PI US 6797691 20040928
SO Official Gazette of the United States Patent and Trademark Office Patents,
(Sep 28 2004) Vol. 1286, No. 4.
http://www.uspto.gov/web/menu/patdata.html
. e-file.
ISSN: 0098-1133 (ISSN print).
DT Patent
LA English
ED Entered STN: 27 Oct 2004
Last Updated on STN: 27 Oct 2004
AB The present invention provides a method of ***inhibiting*** ***angiogenesis*** within a tissue by providing exogenous ***PEDF***
to cells associated with the tissue. The presence of exogenous ***PEDF*** ***inhibits*** ***angiogenesis*** within the tissue,
in part by interfering with the ability of vascular endothelia to expand
within the tissue. The invention also provides a method for determining
the severity of a tumor by assaying for the presence of ***PEDF***
within the tumor. The invention further provides a method of inhibiting
endothelial cell migration, a method of stimulating the growth of hair in
a mammal, a method for inhibiting the growth of a tumor, a method of
inducing differentiation of a neuroblastoma cell, a method of slowing the
growth of a neuroblastoma cell, and method of treating ischemic
retinopathy in a mammal. To facilitate the inventive methods, the present
invention provides pharmaceutical compositions including sources of
PEDF .

L5 ANSWER 17 OF 100 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:291961 CAPLUS
DN 140:298102
TI Anti-angiogenic fragments of pigment epithelium-derived factor (***PEDF***)
IN Volz, Karl; Filleur, Stephanie; Volpert, Olga V.; Zaichuk, Tetiana
PA The Board of Trustees of the University of Illinois, USA; Northwestern
University
SO PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004028559	A1	20040408	WO 2003-US30264	20030926

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,
OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2002-413685P P 20020926
US 2002-417688P P 20021010
AB The present invention provides anti-angiogenic derived from pigment
epithelium-derived factor (***PEDF***) pharmaceutical comps.
comprising the peptides, and methods of preventing angiogenesis. Such
methods are useful in treating angiogenesis-assocd. disorders and
diseases. Also claimed is a method of predicting whether a diabetic
patient will develop proliferative retinopathy comprising detg. the ratio
of vascular endothelial growth factor (VEGF) to ***PEDF*** in an
ocular fluid sample from said patient.
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 18 OF 100 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:681181 CAPLUS
DN 141:212730
TI Polymer modified anti-angiogenic serpins with extended half-life for
inhibition of ***angiogenic*** diseases
IN Kumar, Sanjeev
PA USA
SO U.S. Pat. Appl. Publ., 20 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2004161423	A1	20040819	US 2003-619149	20030714

PRAI US 2002-396786P P 20020718
AB What is provided is a method of improving the ***angiogenesis*** -
inhibitory effect of an antiangiogenic serpin, or antiangiogenic
fragment thereof, by covalently linking a polymer moiety to the serpin
such that the biol. half-life of the serpin is extended. The method
provides for inhibition of diseases having a pathol. angiogenic component
by administering in vivo an antiangiogenic serpin, or fragment thereof,
having a covalently linked polymer moiety. Diseases characterized by
pathol. angiogenesis include diabetic retinopathy, age-related macular
degeneration, rheumatoid arthritis, endometriosis, psoriasis, juvenile
hemangioma, and cancer. In one embodiment, the antiangiogenic serpin is
selected from the group: ***PEDF*** , maspin, antithrombin III,
angiotensinogen and headpin. The present inventors undertook to improve
the biol. activity of the antiangiogenic serpins by polymer modification
and are the first to disclose use of PEGylated antiangiogenic serpins for
use in improving the antitumor effects of these proteins. In one
embodiment, ***PEDF*** protein was PEGylated using tresylated
monomethoxypolyethylene glycol (TMPEG). The 1 .mu.g dose of PEGylated
PEDF resulted in an improved inhibition of tumor growth as
compared with unPEGylated ***PEDF*** . Unlike tumors in untreated
animals, which attained a domed appearance, tumors in the PEGylated
PEDF treated animals were conspicuous for a visible redn. in
vascularity at all time points and a flatter overall appearance. This is
consistent with an antiangiogenic effect.

L5 ANSWER 19 OF 100 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:3717 CAPLUS
DN 140:56055
TI Transgenic knockout animal model null for pigment epithelium-derived
factor (***PEDF***)
IN Bouck, Noel P.; Crawford, Susan E.; Stellmach, Veronica
PA Northwestern University, USA
SO U.S. Pat. Appl. Publ., 7 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI US 2004003423 A1 20040101 US 2003-361516
20030210
PRAI US 2002-355222P P 20020208
AB The present invention relates to transgenic knockout animal models null
for pigment epithelium-derived factor (***PEDF***). The present
invention also provides methods for generating animal disease models and
screening methods for identifying biol. active compds. Mice were
engineered to be null for ***PEDF*** using SV129 ES cells injected
into C57B16 blastocysts. A null allele construct disrupted the
PEDF gene with an IRES-LacZ-Neo cassette between a 4.9 kb 5'-arm
and a 3.7 kb 3'-arm. Chimeric animals were obtained and a male chimeric
mouse was mated to C57B16 females to obtain mice heterozygous for the
PEDF null allele. Mice heterozygous for the null allele were
mated to generate mice homozygous for the null allele of
PEDF .
The null mice are viable and fertile. The null animals showed
abnormalities in multiple systems including the prostate, neural retina,
kidney vasculature, and cerebellar granule cells.

L5 ANSWER 20 OF 100 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:537797 CAPLUS
DN 141:219295
TI Angiogenesis-related factors derived from retinal glial (Mueller) cells in
hypoxia
AU Eichler, Wolfram; Yafai, Yousef; Wiedemann, Peter; Reichenbach, Andreas
CS Eye Hospital, University of Leipzig, Leipzig, D-04103, Germany
SO NeuroReport (2004), 15(10), 1633-1637
CODEN: NERPEZ; ISSN: 0959-4965
PB Lippincott Williams & Wilkins
DT Journal
LA English
AB Retinal glial (Mueller) cells may play a major role in vascular
eye diseases as they secrete vascular endothelial growth factor
(VEGF), a hypoxia-induced angiogenic cytokine. They also release
significant amts. of the anti-angiogenic factors, transforming growth
factor (TGF)-.beta.2, pigment epithelium derived factor (***PEDF***),
and thrombospondin-1 (TSP-1). Exposure of human (MIO-M1) and guinea-pig
Mueller cells to hypoxia resulted in a decreased release of TGF-.beta.2
and ***PEDF*** but in an elevated secretion of TSP-1. When retinal
endothelial cells were exposed to VEGF/anti-angiogenic factor ratios
mimicking those found in culture media of Mueller cells under normoxia or
hypoxia, their proliferation was significantly inhibited by TGF-.beta.2,
PEDF or TSP-1. Thus Mueller cells may provide a permanent
anti-proliferative condition for retinal endothelial cells.
RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s l4 and py<=1998
L6 1 L4 AND PY<=1998

=> d bib abs

L6 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:241907 CAPLUS
DN 138:251121
TI Retinal cell lines with extended life-span and their applications
IN Greenwood, John; Adamson, Peter; Lund, Raymond
PA Neurotech SA, UK
SO U.S. Pat. Appl. Publ., 55 pp., Cont.-in-part of U.S. 6,090,624.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2003059868	A1	20030327	US 2000-559707	20000427
US 6878544	B2	20050412		
FR 2747690	A1	19971024	FR 1996-4964	19960419 <--
FR 2747690	B1	19980612		
WO 9740139	A1	19971030	WO 1997-FR709	19970418 <--
W: AU, CA, JP, NZ, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6183735	B1	20010206	US 1998-973553	19980122
US 6090624	A	20000718	US 1998-182516	19981030
CA 2407424	AA	20011101	CA 2001-2407424	20010427
WO 2001081551	A2	20011101	WO 2001-IB860	20010427
WO 2001081551	A3	20021017		
WO 2001081551	C1	20030103		
WO 2001081551	C2	20020815		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1287115	A2	20030305	EP 2001-931995	20010427
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003530880	T2	20031021	JP 2001-578622	20010427
PRAI FR 1996-4964	A	19960419		
WO 1997-FR709	W	19970418		
US 1998-973553	A2	19980122		
US 1998-182516	A2	19981030		
US 2000-559707	A	20000427		
WO 2001-IB860	W	20010427		

AB The invention features retina-derived (retinal endothelial or retinal
epithelial pigment) cell lines with extended life-span and capable of
being implanted in the retina and of carrying a therapeutic substance to
the ***eye*** and to the central nervous system. Such lines can also
be used as a model for studying blood/central nervous system interfaces.
These lines are derived from primary retinal cultures selected from the
group consisting of primary retinal endothelial cells and primary retinal
epithelial cells, comprise a polynucleotide contg. an oncogene, which
polynucleotide is optionally assocd. with at least one selection gene, and
have the morphol. characteristics and at least the expression
characteristics of the surface antigens of corresponding primary cultures.

=> d his

(FILE 'HOME' ENTERED AT 16:46:45 ON 27 SEP 2005)

FILE 'EMBASE, BIOSIS, CAPLUS' ENTERED AT 16:47:01 ON 27 SEP 2005
L1 727 S PEDF
L2 24387 S (NEOVASCULAR? OR ANGIOGEN?) (3A) (INHIBIT? OR SUPPRES? OR BLO
L3 260 S L1 AND L2
L4 160 S L3 AND EYE
L5 100 DUP REM L4 (60 DUPLICATES REMOVED)
L6 1 S L4 AND PY<=1998

=> s Bouck, N?
TERM 'N?' EXCEEDED TRUNCATION LIMITS - SEARCH ENDED
1 FILES SEARCHED...
You have entered a truncated stem which occurs in too many terms. Make the stem longer and try again. For example, if your original term was 'degr?' to search for variations and the abbreviation for

'degradation', you could replace it with the expression '(degrdn OR degrad?)'. If your search term was numeric, e.g., 'C>5', reduce the size of the range.

=> s Bouck, N?/au
L7 313 BOUCK, N?/AU

=> s l7 and PEDF
L8 30 L7 AND PEDF

=> dup rem l8
PROCESSING COMPLETED FOR L8
L9 13 DUP REM L8 (17 DUPLICATES REMOVED)

=> d bib abs 1-
YOU HAVE REQUESTED DATA FROM 13 ANSWERS - CONTINUE? Y/(N):y

L9 ANSWER 1 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
DUPLICATE 1
AN 2004:415605 BIOSIS
DN PREV200400419260
TI Methods and compositions for inhibiting angiogenesis.
AU ***Bouck, Noel P.*** [Inventor, Reprint Author]; Dawson, David W.
[Inventor]; Gillis, Paul R. [Inventor]; Volpert, Olga [Inventor]; Crawford, Susan E. [Inventor]; Stellmach, Veronica M. [Inventor]
CS Occidental, CA, USA
ASSIGNEE: Northwestern University
PI US 6797691 20040928
SO Official Gazette of the United States Patent and Trademark Office Patents,
(Sep 28 2004) Vol. 1286, No. 4.
http://www.uspto.gov/web/menu/patdata.html
. e-file.
ISSN: 0098-1133 (ISSN print).
DT Patent
LA English
ED Entered STN: 27 Oct 2004
Last Updated on STN: 27 Oct 2004
AB The present invention provides a method of inhibiting angiogenesis within
a tissue by providing exogenous ***PEDF*** to cells associated with
the tissue. The presence of exogenous ***PEDF*** inhibits
angiogenesis within the tissue, in part by interfering with the ability of
vascular endothelia to expand within the tissue. The invention also
provides a method for determining the severity of a tumor by assaying for
the presence of ***PEDF*** within the tumor. The invention further
provides a method of inhibiting endothelial cell migration, a method of
stimulating the growth of hair in a mammal, a method for inhibiting the
growth of a tumor, a method of inducing differentiation of a neuroblastoma
cell, a method of slowing the growth of a neuroblastoma cell, and method
of treating ischemic retinopathy in a mammal. To facilitate the inventive
methods, the present invention provides pharmaceutical compositions
including sources of ***PEDF*** .

L9 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:3717 CAPLUS
DN 140:56055
TI Transgenic knockout animal model null for pigment epithelium-derived
factor (***PEDF***)
IN ***Bouck, Noel P.*** ; Crawford, Susan E.; Stellmach, Veronica
PA Northwestern University, USA
SO U.S. Pat. Appl. Publ., 7 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2004003423	A1	20040101	US 2003-361516	20030210

PRAI US 2002-355222P P 20020208
AB The present invention relates to transgenic knockout animal models null
for pigment epithelium-derived factor (***PEDF***). The present
invention also provides methods for generating animal disease models and
screening methods for identifying biol. active compds. Mice were
engineered to be null for ***PEDF*** using SV129 ES cells injected
into C57B16 blastocysts. A null allele construct disrupted the
PEDF gene with an IRES-LacZ-Neo cassette between a 4.9 kb 5'-arm
and a 3.7 kb 3'-arm. Chimeric animals were obtained and a male chimeric
mouse was mated to C57B16 females to obtain mice heterozygous for the
PEDF null allele. Mice heterozygous for the null allele were
mated to generate mice homozygous for the null allele of ***PEDF*** .
The null mice are viable and fertile. The null animals showed
abnormalities in multiple systems including the prostate, neural retina,
kidney vasculature, and cerebellar granule cells.

L9 ANSWER 3 OF 13 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights
reserved on STN DUPLICATE 2
AN 2003250315 EMBASE
TI Pigment epithelium-derived factor regulates the vasculature and mass of
the prostate and pancreas.
AU Doll J.A.; Stellmach V.M.; ***Bouck N.P.*** ; Bergh A.R.J.; Lee C.;
Abramson L.P.; Cornwell M.L.; Pins M.R.; Borensztajn J.; Crawford S.E.
CS S.E. Crawford, Department of Pathology, NW. University Medical School, 303
E. Chicago Ave., Chicago, IL 60611, United States.
scrawford@northwestern.edu
SO Nature Medicine, (1 Jun 2003) Vol. 9, No. 6, pp. 774-780.
Refs: 45
ISSN: 1078-8956 CODEN: NAMEFI
CY United States
DT Journal; Article
FS 016 Cancer
028 Urology and Nephrology
030 Pharmacology
037 Drug Literature Index
048 Gastroenterology
LA English
SL English
ED Entered STN: 20030710
Last Updated on STN: 20030710
AB Angiogenesis sustains tumor growth and metastasis, and recent studies
indicate that the vascular endothelium regulates tissue mass. In the
prostate, androgens drive angiogenic inducers to stimulate growth, whereas
androgen withdrawal leads to decreased vascular endothelial growth factor,
vascular regression and epithelial cell apoptosis. Here, we identify the
angiogenesis inhibitor pigment epithelium-derived factor (***PEDF***)
as a key inhibitor of stromal vasculature and epithelial tissue growth in
mouse prostate and pancreas. In ***PEDF*** -deficient mice, stromal
vessels were increased and associated with epithelial cell hyperplasia.
Androgens inhibited prostatic ***PEDF*** expression in cultured cells.
In vivo, androgen ablation increased ***PEDF*** in normal rat
prostates and in human cancer biopsies. Exogenous ***PEDF*** induced
tumor epithelial apoptosis in vitro and limited in vivo tumor xenograft
growth, triggering endothelial apoptosis. Thus, ***PEDF*** regulates
normal pancreas and prostate mass. Its androgen sensitivity makes
PEDF a likely contributor to the anticancer effects of androgen
ablation.

L9 ANSWER 4 OF 13 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights
reserved on STN DUPLICATE 3
AN 2003187418 EMBASE
TI Low content of the natural ocular anti-angiogenic agent pigment
epithelium-derived factor (***PEDF***) in aqueous humor predicts
progression of diabetic retinopathy.
AU Boehm B.O.; Lang G.; Volpert O.; Jehle P.M.; Kurkhaus A.; Rosinger S.;

Lang G.K.; ***Bouck N.***
CS Dr. B.O. Boehm, Div. of Endocrinology and Diabetes, Department of Internal
Medicine, University of Ulm Medical School, Robert-Koch-Strasse 8, 89081
Ulm, Germany. bernhard.boehm@medizin.uni-ulm.de
SO Diabetologia, (1 Mar 2003) Vol. 46, No. 3, pp. 394-400.
Refs: 39
ISSN: 0012-186X CODEN: DBTGAJ
CY Germany
DT Journal; Article
FS 003 Endocrinology
006 Internal Medicine
012 Ophthalmology
037 Drug Literature Index
LA English
SL English
ED Entered STN: 20030522
Last Updated on STN: 20030522
AB Aims/hypothesis. Retinopathy is the most common microvascular
complication of diabetes. Our aim was to address the predictive value of
pro-angiogenic and anti-angiogenic markers for progression of retinopathy.
Methods. Aqueous humor was collected at cataract surgery from 32 diabetic
patients who had no or very mild retinopathy (ETDRS stage .ltoreq.20) and
33 normoglycaemic control subjects. Content of pro-angiogenic vascular
endothelial growth factor and angiogenic inhibitor pigment
epithelium-derived factor were determined. Angiogenic activity was
quantified by measuring its effect on the migration of capillary
endothelial cells. The predictive value of the initial level of these
markers for progression of retinopathy was studied by following the
probands for a maximum of 75 months. Results. In the aqueous fluid
content of vascular endothelial growth factor was increased in diabetic
patients (mean values 492 versus 292 pg/ml; p=0.0052), and pigment
epithelium-derived factor values were decreased (mean values 1740 versus
3680 ng/ml; p=0.0058) compared to control subjects. Of the diabetic
patients ten progressed during follow-up (ETDRS stage >47B). This
subgroup showed lower pigment epithelium-derived factor content when
compared to non-progressors and control subjects. Migratory activity in
samples of patients from the control group and in diabetic patients
without progression was generally inhibitory due to pigment
epithelium-derived factor. Inhibition was blocked by neutralizing
antibodies to pigment epithelium-derived factor. In diabetic patients
initial angiogenic activity was higher in those who later developed
retinopathy (vs. controls p=0.00005; vs. no progressors p=0.0003). Both
pigment epithelium-derived factor and migratory response predicted
progression. Conclusion/Interpretation. Pigment epithelium-derived
factor is an important negative regulator of angiogenic activity of
aqueous humor. Its content in the aqueous humor of diabetic patients
strongly predicts who among them will develop progression of retinopathy.

L9 ANSWER 5 OF 13 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights
reserved on STN DUPLICATE 4
AN 2003371039 EMBASE
TI Proliferative diabetic retinopathy is associated with a low level of the
natural ocular anti-angiogenic agent pigment epithelium-derived factor (
PEDF) in aqueous humor. A pilot study.
AU Boehm B.O.; Lang G.; Feldmann B.; Kurkhaus A.; Rosinger S.; Volpert O.;
Lang G.K.; ***Bouck N.***
CS Dr. B.O. Boehm, Div. of Endocrinology and Diabetes, University of Ulm,
Robert-Koch-Strasse 8, 89081 Ulm, Germany. bernhard.boehm@medizin.uni-
ulm.de
SO Hormone and Metabolic Research, (1 Jun 2003) Vol. 35, No. 6, pp. 382-386.
Refs: 32
ISSN: 0018-5043 CODEN: HMMRA2
CY Germany
DT Journal; Article
FS 012 Ophthalmology
029 Clinical Biochemistry
LA English
SL English
ED Entered STN: 20031002
Last Updated on STN: 20031002
AB Retinopathy is the most common microvascular diabetes complication and
represents a major threat to the eyesight. The aim of this study was to
address the role of pro- and anti-angiogenic molecules in diabetic
retinopathy in the aqueous humor of the eye. Aqueous humor was collected
at cataract surgery from 19 diabetic patients and from 13 age- and
sex-matched normoglycemic controls. Levels of pro-angiogenic vascular
endothelial growth factor (VEGF) and angiogenic inhibitor pigment
epithelium-derived factor (***PEDF***) were determined. Angiogenic
activity of the aqueous humor was quantified by measuring its effect on
the migration of capillary endothelial cells. In the aqueous fluid, VEGF
levels were increased in diabetics (mean values: 501 vs. 367 pg/ml; p =
0.05), compared to controls. ***PEDF*** was found to be decreased in
diabetics (mean values: 2080 vs. 5780 ng/ml; p = 0.04) compared to
controls. In seven diabetic patients with proliferative retinopathy, the
most profound finding was a significant decrease of the ***PEDF***
level (mean value: 237 ng/ml), whereas VEGF levels were comparable to
diabetic patients without proliferation (mean value: 3153; p = 0.003).
Angiogenic activity in samples of patients from the control group was
generally inhibitory due to ***PEDF*** , and inhibition was blocked by
neutralizing antibodies to ***PEDF*** . Likewise, in diabetics without
proliferation, angiogenic activity was also blocked by antibodies to
PEDF . We will demonstrate here that the level of the natural
ocular anti-angiogenic agent ***PEDF*** is inversely associated with
proliferative retinopathy. ***PEDF*** is an important negative
regulator of angiogenic activity of aqueous humor. Our data may have
implications for the development of novel regimens for diabetic
retinopathy.

L9 ANSWER 6 OF 13 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights
reserved on STN DUPLICATE 5
AN 2002242087 EMBASE
TI ***PEDF*** : Anti-angiogenic guardian of ocular function.
AU ***Bouck N.***
CS N. Bouck, Dept. of Microbiology-Immunology, Robert H. Lurie Compreh.
Cancer Ctr., Northwestern Univ. Medical School, 310 East Superior Street,
Chicago, IL 60611, United States. n-bouck@northwestern.edu
SO Trends in Molecular Medicine, (2002) Vol. 8, No. 7, pp. 330-334.
Refs: 45
ISSN: 1471-4914 CODEN: TMMRCY
PUI S 1471-4914(02)02362-6
CY United Kingdom
DT Journal; General Review
FS 005 General Pathology and Pathological Anatomy
012 Ophthalmology
030 Pharmacology
037 Drug Literature Index
038 Adverse Reactions Titles
LA English
SL English
ED Entered STN: 20020725
Last Updated on STN: 20020725
AB Sight-threatening eye diseases can be caused and exacerbated by the
aberrant growth of new blood vessels. Recent work indicates that this
neovascularization not only is a response to a rise in the local

concentration of molecules that induce such angiogenesis but also requires a fall in the levels of endogenous molecules that inhibit angiogenesis. One of the most potent of these endogenous inhibitors is pigment epithelium-derived factor (***PEDF***), which serves as a survival factor for neuronal components of the eye as well as an essential inhibitor of the growth of ocular blood vessels. Its anti-angiogenic activity is selective in that it is effective against newly forming vessels but spares existing ones, and it is reversible. The molecular basis for this delicate control of endothelial cells is beginning to be understood and strategies to test the ability of ***PEDF*** to ameliorate or prevent vessel damage in the eye are developing rapidly.

L9 ANSWER 7 OF 13 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights reserved on STN DUPLICATE 6
AN 2002275412 EMBASE
TI Pigment epithelium-derived factor is deficient in the vitreous of patients with choroidal neovascularization due to age-related macular degeneration.
AU Holekamp N.M.; ***Bouck N.*** ; Volpert O.
CS Dr. N.M. Holekamp, Barnes Retina Institute, 1600 South Brentwood Blvd, St. Louis, MO 63141, United States. nholekamp@pol.net
SO American Journal of Ophthalmology, (2002) Vol. 134, No. 2, pp. 220-227.
Refs: 26
ISSN: 0002-9394 CODEN: AJOPAA
PUI S 0002-9394(02)01549-0
CY United States
DT Journal; Article
FS 012 Ophthalmology
020 Gerontology and Geriatrics
029 Clinical Biochemistry
LA English
SL English
ED Entered STN: 20020815
Last Updated on STN: 20020815
AB PURPOSE: Pigment epithelium-derived growth factor (***PEDF***) is a potent inhibitor of angiogenesis that is found in the normal eye. The purpose of this study is to report decreased levels of ***PEDF*** in the vitreous of eyes with choroidal neovascularization (CNV) due to age-related macular degeneration (AMD). DESIGN: Prospective case-control study. METHODS: In a prospective case-control study, undiluted vitreous was collected from nine eyes of nine patients with CNV due to AMD and from an age-matched control group of 12 eyes of 12 patients with retinal disorders not involving neovascularization. Vitreous ***PEDF*** and vascular endothelial growth factor (VEGF) concentrations were determined by Western blot analyses and enzyme-linked immunosorbent assay (ELISA), respectively. Angiogenic activities of the vitreous samples were assessed in vitro using an endothelial cell chemotaxis assay. RESULTS: In vitreous samples from nine eyes with CNV due to AMD the mean .+. SD ***PEDF*** level was 2.8 ng/.mu.l .+. 1.3 ng/.mu.l. In vitreous samples from 12 age-matched control eyes the mean .+. SD ***PEDF*** level was 16.4 ng/.mu.l .+. 7.1 ng/.mu.l. The difference between the two groups was statistically significant (P = .00003). No significant difference in vitreous VEGF concentration was seen between CNV/AMD samples and control samples (P = .23). All CNV/AMD vitreous samples induced endothelial cell migration in vitro. No sample from age-matched non-age-related macular degeneration controls could induce endothelial cell migration, and 11 of 12 were able to block VEGF-induced migration in vitro. This inhibitory activity required active ***PEDF*** . CONCLUSION: The vitreous of patients with CNV due to AMD contained lower levels of ***PEDF*** and lacked the antiangiogenic activity of vitreous from age-matched controls. This suggests that loss of ***PEDF*** creates a permissive environment for CNV patients with AMD. .COPYRGT. 2002 by Elsevier Science Inc. All rights reserved.

L9 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:636043 CAPLUS
DN 135:205922
TI Methods and compositions for inhibiting angiogenesis using ***PEDF***
(pigment epithelium differentiation factor)
IN ***Bouck, Noel P.*** ; Dawson, David W.; Gillis, Paul R.; Crawford, Susan E.; Stellmach, Veronica M.; Volpert, Olga
PA Northwestern University, USA
SO PCT Int. Appl., 100 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 5

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001062725	A2	20010830	WO 2001-US5915	20010222
WO 2001062725	A3	20020321		
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
US 6797691	B1	20040928	US 2000-603478	20000623
CA 2401096	AA	20010830	CA 2001-2401096	20010222
AU 2001039855	A5	20010903	AU 2001-39855	20010222
EP 1265627	A2	20021218	EP 2001-914469	20010222
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
JP 2004516001	T2	20040603	JP 2001-561733	20010222

PRAI US 2000-511683 A 20000223
US 2000-603478 A 20000623
US 1997-899304 B2 19970723
US 1998-122079 A2 19980723
WO 1998-US15228 A2 19980723
WO 2001-US5915 W 20010222
AB The present invention provides a method of inhibiting angiogenesis within a tissue by providing exogenous ***PEDF*** to cells assocd. with the tissue. The presence of exogenous ***PEDF*** inhibits angiogenesis within the tissue, in part by interfering with the ability of vascular endothelia to expand within the tissue. The invention also provides a method for detg. the severity of a tumor by assaying for the presence of ***PEDF*** within the tumor. The invention further provides a method of inhibiting endothelial cell migration, a method of stimulating the growth of hair in a mammal, a method for inhibiting the growth of a tumor, a method of inducing differentiation of a neuroblastoma cell, a method of slowing the growth of a neuroblastoma cell, and method of treating ischemic retinopathy in a mammal. To facilitate the inventive methods, the present invention provides pharmaceutical compns. including sources of ***PEDF*** .

L9 ANSWER 9 OF 13 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights reserved on STN DUPLICATE 7
AN 2002035104 EMBASE
TI Pigment epithelium-derived factor (***PEDF***) in neuroblastoma: A multifunctional mediator of Schwann cell antitumor activity.
AU Crawford S.E.; Stellmach V.; Ranalli M.; Huang X.; Huang L.; Volpert O.; De Vries G.H.; Abramson L.P.; ***Bouck N.***
CS S.E. Crawford, Department of Pathology, R. H. Lurie Comprehen. Cancer

Center, Northwestern University Medical Sch., Chicago, IL 60611, United
States. scrawford@northwestern.edu
SO Journal of Cell Science, (2001) Vol. 114, No. 24, pp. 4421-4428.
Refs: 58
ISSN: 0021-9533 CODEN: JNCSAI
CY United Kingdom
DT Journal; Article
FS 008 Neurology and Neurosurgery
016 Cancer
030 Pharmacology
037 Drug Literature Index
LA English
SL English
ED Entered STN: 20020207
Last Updated on STN: 20020207
AB Neuroblastoma is notable for its cellular heterogeneity and unpredictable
outcome. Tumors are a variable mixture of primitive malignant
neuroblasts, more differentiated ganglionic cells, Schwann and endothelial
cells. Although often fatal, neuroblastomas can spontaneously regress,
possibly due to favorable autocrine and paracrine interactions among these
cells. Here, pigment epithelium-derived factor (***PEDF***), a potent
inhibitor of angiogenesis and inducer of neural differentiation, is shown
to be produced by ganglionic cells and Schwann cells, but not by more
primitive tumor cells. Although undifferentiated neuroblastoma tumor cell
secretions were angiogenic primarily due to vascular endothelial growth
factor, secretions of Schwann cells were anti-angiogenic due to ***PEDF*** . In addition, ***PEDF*** was the major factor responsible for Schwann cell's ability to induce tumor cell differentiation in vitro and recombinant ***PEDF*** had the same
effect in vitro and in vivo. Both the growth and the survival of Schwann
cells were enhanced by ***PEDF*** . Thus ***PEDF*** may serve as a
multifunctional antitumor agent in neuroblastomas, inhibiting angiogenesis
while promoting the numbers of Schwann cells and differentiated tumor
cells that in turn produce ***PEDF*** , suggesting that its clinical
administration could stimulate a multifaceted antitumor feedback loop with
the potential to limit and possibly regress tumor growth.

L9 ANSWER 10 OF 13 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights
reserved on STN DUPLICATE 8
AN 2001099898 EMBASE
TI Prevention of ischemia-induced retinopathy by the natural ocular antiangiogenic agent pigment epithelium-derived factor.
AU Stellmach V.; Crawford S.E.; Zhou W.; ***Bouck N.***
CS N. Bouck, Dept. of Microbiology-Immunology, Robert H. Lurie Compreh.
Cancer Ctr., Northwestern University Medical Sch., 320 East Superior
Street, Chicago, IL 60611, United States. n-bouck@nwu.edu
SO Proceedings of the National Academy of Sciences of the United States of
America, (27 Feb 2001) Vol. 98, No. 5, pp. 2593-2597.
Refs: 51
ISSN: 0027-8424 CODEN: PNASA6
CY United States
DT Journal; Article
FS 005 General Pathology and Pathological Anatomy
012 Ophthalmology
LA English
SL English
ED Entered STN: 20010412
Last Updated on STN: 20010412
AB Aberrant blood vessel growth in the retina that underlies the pathology of
proliferative diabetic retinopathy and retinopathy of prematurity is the
result of the ischemia-driven disruption of the normally antiangiogenic
environment of the retina. In this study, we show that a potent inhibitor
of angiogenesis found naturally in the normal eye, pigment
epithelium-derived growth factor (***PEDF***), inhibits such aberrant
blood vessel growth in a murine model of ischemia-induced retinopathy.
Inhibition was proportional to dose and systemic delivery of recombinant
protein at daily doses as low as 2.2 mg/kg could prevent aberrant
endothelial cells from crossing the inner limiting membrane. ***PEDF***
appeared to inhibit angiogenesis by causing apoptosis of activated
endothelial cells, because it induced apoptosis in cultured endothelial
cells and an 8-fold increase in apoptotic endothelial cells could be
detected in situ when the ischemic retinas of ***PEDF*** -treated
animals were compared with vehicle-treated controls. The ability of low
doses of ***PEDF*** to curtail aberrant growth of ocular endothelial
cells without overt harm to retinal morphology suggests that this natural
protein may be beneficial in the treatment of a variety of retinal vasculopathies.

L9 ANSWER 11 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
STN
AN 2001:287260 BIOSIS
DN PREV200100287260
TI The role of ***PEDF*** in the angiostatic effect of penetrating ocular
injury.
AU Penn, J. S. [Reprint author]; Rajaratnam, V. S. [Reprint author]; Koepke,
K. A. [Reprint author]; Helton, J. D. [Reprint author]; McGinnis, J. F.;
Bouck, N. P.
CS Ophthalmology and Visual Sciences, Vanderbilt Univ School of Med,
Nashville, TN, USA
SO IOVS, (March 15, 2001) Vol. 42, No. 4, pp. S92. print.
Meeting Info.: Annual Meeting of the Association for Research in Vision
and Ophthalmology. Fort Lauderdale, Florida, USA. April 29-May 04, 2001.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 13 Jun 2001
Last Updated on STN: 19 Feb 2002

L9 ANSWER 12 OF 13 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
STN
AN 2001:287261 BIOSIS
DN PREV200100287261
TI Pigment epithelium-derived factor (***PEDF***) inhibits vascular
endothelial growth factor (VEGF): Induced retinal permeability and blood
flow in vivo.
AU Clermont, A. C. [Reprint author]; Cahill, M. T. [Reprint author]; Bursell,
S.-E. [Reprint author]; ***Bouck, N.*** ; Aiello, L. P. [Reprint author]
CS Joslin Diabetes Center, Beetham Eye Institute, Boston, MA, USA
SO IOVS, (March 15, 2001) Vol. 42, No. 4, pp. S92. print.
Meeting Info.: Annual Meeting of the Association for Research in Vision
and Ophthalmology. Fort Lauderdale, Florida, USA. April 29-May 04, 2001.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 13 Jun 2001
Last Updated on STN: 19 Feb 2002

L9 ANSWER 13 OF 13 EMBASE COPYRIGHT (c) 2005 Elsevier B.V. All rights
reserved on STN DUPLICATE 9
AN 1999247607 EMBASE
TI Pigment epithelium-derived factor: A potent inhibitor of angiogenesis.
AU Dawson D.W.; Volpert O.V.; Gillis P.; Crawford S.E.; Xu H.-J.; Benedict
W.; ***Bouck N.P.***
CS N.P. Bouck, Dept. of Microbiology-Immunology, R. H. Lurie Comprehensive
Can. Ctr., Northwestern Univ. Medical School, Chicago, IL 60611, United
States. n-bouck@nwu.edu
SO Science, (9 Jul 1999) Vol. 285, No. 5425, pp. 245-248.
ISSN: 0036-8075 CODEN: SCIEAS
CY United States

DT Journal; Article
FS 005 General Pathology and Pathological Anatomy
012 Ophthalmology
LA English
SL English
ED Entered STN: 19990802
Last Updated on STN: 19990802
AB In the absence of disease, the vasculature of the mammalian eye is
quiescent, in part because of the action of angiogenic inhibitors that
prevent vessels from invading the cornea and vitreous. Here, an inhibitor
responsible for the avascularity of these ocular compartments is
identified as pigment epithelium-derived factor (***PEDF***), a
protein previously shown to have neurotrophic activity. The amount of
inhibitory ***PEDF*** produced by retinal cells was positively
correlated with oxygen concentrations, suggesting that its loss plays a
permissive role in ischemia-driven retinal neovascularization. These
results suggest that ***PEDF*** may be of therapeutic use, especially
in retinopathies where pathological neovascularization compromises vision
and leads to blindness.

=>

---Logging off of STN---

=>
Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	115.16	115.37

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-12.41	-12.41

STN INTERNATIONAL LOGOFF AT 16:51:28 ON 27 SEP 2005